

West Virginia Department of Environmental Protection

*Earl Ray Tomblin
Governor*

Division of Air Quality

*Randy C. Huffman
Cabinet Secretary*

Permit to Modify



R13-2856A

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§ 22-5-1 et seq.) and 45CSR13 — Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation. The permittee identified at the facility listed below is authorized to construct the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Issued to:

**Dominion Transmission, Inc.
Wilsonburg Station
033-00011**

*John A. Benedict
Director*

Issued: Draft • Effective: Draft

This permit supercedes and replaces permit R13-2856.

Facility Location: Wilsonburg, Harrison County, West Virginia
Mailing Address: 445 West Main Street, Clarksburg, WV 26301
Facility Description: Natural Gas Compressor Station
SIC Codes: 4922 - Booster Pumping Station
486210 - Natural Gas Transportation
UTM Coordinates: 549.9 km Easting • 4,348.7 km Northing • Zone 17
Permit Type: Modification
Description
of Change: Construction and Operation of a 13.5 mmscfd Dehydration unit with a 10 MMBtu/hr flare

Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§ 22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §22-5-14.

The source is subject to 45CSR30. The permittee has the duty to update the facility's Title V (45CSR30) permit application to reflect the changes permitted herein.

Unless otherwise stated WVDEP DAQ did not determine whether the permittee is subject to an area source air toxics standard requiring Generally Achievable Control Technology (GACT) promulgated after January 1, 2007 pursuant to 40 CFR 63, including the area source air toxics provisions of 40 CFR 63, Subpart HH and 40 CFR 63, Subpart ZZZZ.

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1.0 Emission Units

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Constructed | Design Capacity | Control Device |
|------------------|-------------------|---------------------------|------------------|-----------------|----------------|
| 005-01 | EG01 | Emergency Generator | 2010 | 192.5 HP | N/A |
| 005-02 | EG02 | Emergency Generator | 2010 | 192.5 HP | N/A |
| DEHY02 | F2 | Cameron Dehydration Unit | 2011 | 13.5 mmscf/d | F2 |
| RBR02 | RBR02 | Cameron Reboiler | 2011 | 1.104 MMBtu/hr | N/A |
| F2 | F2 | Cameron Flare | 2011 | 10 MMBtu/hr | N/A |
| | | | | | |
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2.0. General Conditions

2.1. Definitions

- 2.1.1. All references to the "West Virginia Air Pollution Control Act" or the "Air Pollution Control Act" mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.
- 2.1.2. The "Clean Air Act" means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.
- 2.1.3. "Secretary" means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45CSR§30-2.12). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.

2.2. Acronyms

| | | | |
|-----------------------------|---|-------------------------|--|
| CAAA | Clean Air Act Amendments | NSPS | New Source Performance Standards |
| CBI | Confidential Business Information | PM | Particulate Matter |
| CEM | Continuous Emission Monitor | PM_{2.5} | Particulate Matter less than 2.5µm in diameter |
| CES | Certified Emission Statement | PM₁₀ | Particulate Matter less than 10µm in diameter |
| C.F.R. or CFR | Code of Federal Regulations | Ppb | Pounds per Batch |
| CO | Carbon Monoxide | pph | Pounds per Hour |
| C.S.R. or CSR | Codes of State Rules | ppm | Parts per Million |
| DAQ | Division of Air Quality | Ppmv or ppmv | Parts per million by volume |
| DEP | Department of Environmental Protection | PSD | Prevention of Significant Deterioration |
| dscm | Dry Standard Cubic Meter | psi | Pounds per Square Inch |
| FOIA | Freedom of Information Act | SIC | Standard Industrial Classification |
| HAP | Hazardous Air Pollutant | SIP | State Implementation Plan |
| HON | Hazardous Organic NESHAP | SO₂ | Sulfur Dioxide |
| HP | Horsepower | TAP | Toxic Air Pollutant |
| lbs/hr | Pounds per Hour | TPY | Tons per Year |
| LDAR | Leak Detection and Repair | TRS | Total Reduced Sulfur |
| M | Thousand | TSP | Total Suspended Particulate |
| MACT | Maximum Achievable Control Technology | USEPA | United States Environmental Protection Agency |
| MDHI | Maximum Design Heat Input | UTM | Universal Transverse Mercator |
| MM | Million | VEE | Visual Emissions Evaluation |
| MMBtu/hr or mmbtu/hr | Million British Thermal Units per Hour | VOC | Volatile Organic Compounds |
| MMCF/hr or mmcf/hr | Million Cubic Feet per Hour | VOL | Volatile Organic Liquids |
| NA | Not Applicable | | |
| NAAQS | National Ambient Air Quality Standards | | |
| NESHAPS | National Emissions Standards for Hazardous Air Pollutants | | |
| NO_x | Nitrogen Oxides | | |

2.3. Authority

This permit is issued in accordance with West Virginia Air Pollution Control Law W.Va. Code §§22-5-1 et seq. and the following Legislative Rules promulgated thereunder:

- 2.3.1. 45CSR13 – *Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation;*

2.4. Term and Renewal

- 2.4.1. This permit shall remain valid, continuous and in effect unless it is revised, suspended, revoked or otherwise changed under an applicable provision of 45CSR13 or any applicable legislative rule.

2.5. Duty to Comply

- 2.5.1. The permitted facility shall be constructed and operated in accordance with the plans and specifications filed in Permit Application R13-2856A and any modifications, administrative updates, or amendments thereto. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to.
[45CSR§13-5.11 and 13-10.3]
- 2.5.2. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA .
- 2.5.3. Violations of any of the conditions contained in this permit, or incorporated herein by reference, may subject the permittee to civil and/or criminal penalties for each violation and further action or remedies as provided by West Virginia Code 22-5-6 and 22-5-7.
- 2.5.4. Approval of this permit does not relieve the permittee herein of the responsibility to apply for and obtain all other permits, licenses and/or approvals from other agencies; i.e., local, state and federal, which may have jurisdiction over the construction and/or operation of the source(s) and/or facility herein permitted.

2.6. Duty to Provide Information

The permittee shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for administratively updating, modifying, revoking or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.

2.7. Duty to Supplement and Correct Information

Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the permittee shall promptly submit to the Secretary such supplemental facts or corrected information.

2.8. Administrative Update

The permittee may request an administrative update to this permit as defined in and according to the procedures specified in 45CSR13.

[45CSR§13-4]

2.9. Permit Modification

The permittee may request a minor modification to this permit as defined in and according to the procedures specified in 45CSR13.

[45CSR§13-5.4.]

2.10. Major Permit Modification

The permittee may request a major modification as defined in and according to the procedures specified in 45CSR14 or 45CSR19, as appropriate.

[45CSR§13-5.1]

2.11. Inspection and Entry

The permittee shall allow any authorized representative of the Secretary, upon the presentation of credentials and other documents as may be required by law, to perform the following:

- a. At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;
- d. Sample or monitor at reasonable times substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.

2.12. Emergency

- 2.12.1. An "emergency" means any situation arising from sudden and reasonable unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission

limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

- 2.12.2. Effect of any emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of Section 2.12.3 are not met.
- 2.12.3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:
- a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;
 - b. The permitted facility was at the time being properly operated;
 - c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and,
 - d. The permittee submitted notice of the emergency to the Secretary within one (1) working day of the time when emission limitations were exceeded due to the emergency and made a request for variance, and as applicable rules provide. This notice must contain a detailed description of the emergency, any steps taken to mitigate emission, and corrective actions taken.
- 2.12.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.
- 2.12.5. The provisions of this section are in addition to any emergency or upset provision contained in any applicable requirement.

2.13. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it should have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.

2.14. Suspension of Activities

In the event the permittee should deem it necessary to suspend, for a period in excess of sixty (60) consecutive calendar days, the operations authorized by this permit, the permittee shall notify the Secretary, in writing, within two (2) calendar weeks of the passing of the sixtieth (60) day of the suspension period.

2.15. Property Rights

This permit does not convey any property rights of any sort or any exclusive privilege.

2.16. Severability

The provisions of this permit are severable and should any provision(s) be declared by a court of competent jurisdiction to be invalid or unenforceable, all other provisions shall remain in full force and effect.

2.17. Transferability

This permit is transferable in accordance with the requirements outlined in Section 10.1 of 45CSR13. [45CSR§13-10.1]

2.18. Notification Requirements

The permittee shall notify the Secretary, in writing, no later than thirty (30) calendar days after the actual startup of the operations authorized under this permit.

2.19. Credible Evidence

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defense otherwise available to the permittee including, but not limited to, any challenge to the credible evidence rule in the context of any future proceeding.

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3.0. Facility-Wide Requirements

3.1. Limitations and Standards

- 3.1.1. **Open burning.** The open burning of refuse by any person, firm, corporation, association or public agency is prohibited except as noted in 45CSR§6-3.1.
[45CSR§6-3.1.]
- 3.1.2. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause, suffer, allow or permit any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible.
[45CSR§6-3.2.]
- 3.1.3. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee, owner, or operator must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). The USEPA, the Division of Waste Management and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them.
[40CFR§61.145(b) and 45CSR§34]
- 3.1.4. **Odor.** No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.
[45CSR§4-3.1 State-Enforceable only.]
- 3.1.5. **Permanent shutdown.** A source which has not operated at least 500 hours in one 12-month period within the previous five (5) year time period may be considered permanently shutdown, unless such source can provide to the Secretary, with reasonable specificity, information to the contrary. All permits and general permit registrations may be modified or revoked and/or reapplication or application for new permits and general permit registrations may be required for any source determined to be permanently shutdown.
[45CSR§13-10.5.]
- 3.1.6. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45CSR11.
[45CSR§11-5.2.]

3.2. Monitoring Requirements

[Reserved]

3.3. Testing Requirements

- 3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit

and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment, such as scaffolding, railings and ladders, to comply with generally accepted good safety practices. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:

- a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63 in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4 or 45CSR§13-5.4 as applicable.
- b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4 or 45CSR§13-5.4 as applicable.
- c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.
[WV Code § 22-5-4(a)(15)]
- d. The permittee shall submit a report of the stack test within sixty (60) days of completion of the test. The test report shall provide the information necessary to document the objectives of the test and to determine whether proper procedures were used to accomplish these objectives. The report shall include the following: the certification described in paragraph 3.5.1.; a statement of compliance status, also signed by a responsible official; and, a summary of conditions which form the basis for the compliance status evaluation. The summary of conditions shall include the following:
 1. The permit or rule evaluated, with the citation number and language;
 2. The result of the test for each permit or rule condition; and,
 3. A statement of compliance or noncompliance with each permit or rule condition.

[WV Code § 22-5-4(a)(14-15) and 45CSR13]

3.4. Recordkeeping Requirements

- 3.4.1. **Retention of records.** The permittee shall maintain records of all information (including monitoring data, support information, reports and notifications) required by this permit recorded in a form suitable and readily available for expeditious inspection and review. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation. The files shall be maintained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be maintained on site. The remaining three (3) years of data may be maintained off site, but must remain accessible within a reasonable time. Where appropriate, the permittee may maintain records electronically (on a computer, on computer floppy disks, CDs, DVDs, or magnetic tape disks), on microfilm, or on microfiche.
- 3.4.2. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.
[45CSR§4. *State-Enforceable only.*]

3.5. Reporting Requirements

- 3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.
- 3.5.2. **Confidential information.** A permittee may request confidential treatment for the submission of reporting required by this permit pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.
- 3.5.3. **Correspondence.** All notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, or mailed first class with postage prepaid to the address(es) set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

If to the DAQ:

Director
WVDEP
Division of Air Quality
601 57th Street, SE
Charleston, WV 25304-2345

If to the USEPA:

Associate Director
Office of Enforcement and Permits Review
(3AP12)
U. S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

3.5.4. Operating Fee.

- 3.5.4.1. In accordance with 45CSR30 – Operating Permit Program, the permittee shall submit a Certified Emissions Statement (CES) and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality. A receipt for the appropriate fee shall be maintained on the premises for which the receipt has been issued, and shall be made immediately available for inspection by the Secretary or his/her duly authorized representative.
 - 3.5.4.2. In accordance with 45CSR30 – Operating Permit Program, enclosed with this permit is a Certified Emissions Statement (CES) Invoice, from the date of initial startup through the following June 30. Said invoice and the appropriate fee shall be submitted to this office no later than 30 days prior to the date of initial startup. For any startup date other than July 1, the permittee shall pay a fee or prorated fee in accordance with the Section 4.5 of 45CSR22. A copy of this schedule may be found attached to the Certified Emissions Statement (CES) Invoice.
- 3.5.5. **Emission inventory.** At such time(s) as the Secretary may designate, the permittee herein shall prepare and submit an emission inventory for the previous year, addressing the emissions from the facility and/or process(es) authorized herein, in accordance with the emission inventory submittal requirements of the Division of Air Quality. After the initial submittal, the Secretary may, based upon the type and quantity of the pollutants emitted, establish a frequency other than on an annual basis.

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4.0. Source-Specific Requirements (Engines)

4.1. Limitations and Standards

- 4.1.1. **Minor Source of Hazardous Air Pollutants (HAP).** HAP emissions from the affected facility shall be less than 10 ton/yr of any single HAP and 25 ton/yr of any combination of HAPs. Compliance with this Section shall ensure that the affected facility is a minor HAP source.
- 4.1.2. For the two (2) emergency generators (Emission Unit IDs 005-01 and 005-02) with stationary spark ignition (SI) internal combustion engines (ICE) manufactured after January 1, 2009, each having maximum engine power greater than 19 KW (25 HP), the permittee shall comply with all applicable provisions of 40 CFR 60, Subpart JJJJ.
[40 CFR§60.4230(a)(3)(iv)]
- 4.1.3. For the two (2) emergency generators (Emission Unit ID's 005-01 and 005-02) with maximum engine power greater than or equal to 100 HP, the permittee must comply with the emission standards in 40 CFR 60, Subpart JJJJ, Table 1.

| Table 1 to Subpart JJJJ of Part 60: NO _x , CO, and VOC Emission Standards for Stationary Emergency Engines > 25 HP. | | | | | |
|--|----------------------|-------------------|------------------------------|-----|------------------|
| Engine Type and Fuel | Maximum Engine Power | Manufacturer Date | Emission Standards (g/HP-hr) | | |
| | | | NO _x | CO | VOC ^d |
| Emergency | HP ≥ 130 | 1/1/2009 | 2.0 | 4.0 | 1.0 |
| ^d For purposes of this subpart, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included. | | | | | |

[40 CFR§60.4231(e)]

- 4.1.4. The permittee must operate and maintain the two (2) stationary SI ICE that achieve the emission standards as required in §60.4233 over the entire life of the engine.
[40 CFR§60.4234]
- 4.1.5. For emergency stationary SI ICE with a maximum engine power of greater than 19 KW (25 HP), the permittee may not install engines that do not meet the applicable requirements in §60.4233 after January 1, 2011.
[40 CFR§60.4236(c)]
- 4.1.6. For a stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP), the permittee must comply with the emission standards specified in §60.4233(e) by demonstrating compliance according to one of the methods specified below:
- Purchasing an engine certified according to procedures specified in this subpart, for the same model year and demonstrating compliance according to one of the two methods specified below:

1. If you operate and maintain the certified stationary SI ICE and control device according to the manufacturer's emission-related written instructions, you must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required if you are an owner or operator.

[40 CFR§60.4243(a)(1)]

2. If you do not operate and maintain the certified stationary SI ICE and control device according to the manufacture's emission-related written instructions, your engine will be considered a non-certified engine, and you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test within 1 year of engine startup to demonstrate compliance.

[40 CFR§60.4243(a)(2)(ii)]

[40 CFR §60.4243(b)(1)]

- b. Purchasing a non-certified engine and demonstrating compliance with the emission standards according to the requirements specified in §60.4244, as applicable, and by keeping a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance.

[40 CFR§60.4243(b)(2)(ii)]

[40 CFR§60.4243(b)(2)]

- 4.1.7. Emissions from the two (2) emergency generators (Emission Point ID's EG01 & EG02) shall not exceed the hourly and annual limitations given below in permit Table 2:

| Permit Table 2: Emissions from Dominion's Two (2) Emergency, NG-fired Engines. | | | | |
|--|------------------------------------|---|--|---|
| Pollutant | | Maximum Emissions (Uncontrolled) | | |
| | | Hourly (lb/hr) | | Annual ⁽⁴⁾ (ton/yr) |
| | | One Engine Operation | Two Engine Operation ⁽³⁾ | |
| Criteria Pollutants | Nitrogen Oxides (NO _x) | 0.03 ⁽¹⁾ | 0.06 | 0.02 |
| | Carbon Monoxide (CO) | 0.39 ⁽¹⁾ | 0.78 | 0.20 |
| | Volatile Organic Compounds (VOC) | 0.19 ⁽¹⁾ | 0.38 | 0.10 |
| HAP | Formaldehyde | 0.03 ⁽²⁾ | 0.06 | 0.02 |
| (1) Estimated using Manufacturer's Information. (2) Estimated using AP-42 factors. (3) Two Engine Operation (lb/hr) = One Engine Operation (lb/hr) x 2 (4) Based on operating each generator 500 hr/yr. | | | | |

4.1.8. Each of the two (2) emergency generator engines (Emission Unit ID's 005-01 and 005-02) shall not be operated more than 500 hr/yr.

4.1.9. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR§13-5.11.]

4.2. Monitoring Requirements

[Reserved]

4.3. Testing Requirements

4.3.1. Owners and operators of stationary SI ICE who conduct performance tests must follow the procedures in paragraphs (a) through (g) of this section.

- a. Each performance test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and according to the requirements in §60.8 and under the specific conditions that are specified by Table 2 to this subpart. [40 CFR§60.4244(a)]
- b. You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §60.8(c). If your stationary SI internal combustion engine is non-operational, you do not need to startup the engine solely to conduct a performance test; however, you must conduct the performance test immediately upon startup of the engine. [40 CFR§60.4244(b)]
- c. You must conduct three separate test runs for each performance test required in this section, as specified in §60.8(f). Each test run must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least 1 hour. [40 CFR§60.4244(c)]
- d. To determine compliance with the NO_x mass per unit output emission limitation, convert the concentration of NO_x in the engine exhaust using Equation 1 of this section:

$$\text{ER} = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{\text{HP} - \text{hr}} \quad (\text{Eq.1})$$

Where:

- ER = Emission rate of NO_x in g/HP-hr.
C_d = Measured NO_x concentration in parts per million by volume (ppmv).
1.912 x 10⁻³ = Conversion constant for ppm NO_x to grams per standard cubic meter at 20 degrees Celsius.
Q = Stack gas volumetric flow rate, in standard cubic meter per hour, dry basis.
T = Time of test run, in hours.
HP - hr = Break work of the engine, horsepower-hour (HP-hr).

[40 CFR§60.4244(d)]

- e. To determine compliance with the CO mass per unit output emission limitation, convert the concentration of CO in the engine exhaust using Equation 2 of this section:

$$ER = \frac{C_d \times 1.164 \times 10^{-3} \times Q \times T}{\text{HP - hr}} \quad (\text{Eq. 2})$$

Where:

- ER = Emission rate of CO in g/HP-hr.
C_d = Measured CO concentration in parts per million by volume (ppmv).
1.164 x 10⁻³ = Conversion constant for ppm CO to grams per standard cubic meter at 20 degrees Celsius.
Q = Stack gas volumetric flow rate, in standard cubic meter per hour, dry basis.
T = Time of test run, in hours.
HP - hr = Break work of the engine, horsepower-hour (HP-hr).

[40 CFR§60.4244(e)]

- f. For purposes of this subpart, when calculating emissions of VOC, emission of formaldehyde should not be included. To determine compliance with the VOC mass per unit output emission limitation, convert the concentration of VOC in the engine exhaust using Equation 3 of this section:

$$ER = \frac{C_d \times 1.833 \times 10^{-3} \times Q \times T}{\text{HP - hr}} \quad (\text{Eq. 3})$$

Where:

- ER = Emission rate of VOC in g/HP-hr.
C_d = VOC concentration as propane in ppmv.
1.833 x 10⁻³ = Conversion constant for ppm VOC measured as propane, to grams per standard cubic meter at 20 degrees Celsius.
Q = Stack gas volumetric flow rate, in standard cubic meter per hour, dry basis.
T = Time of test run, in hours.
HP - hr = Break work of the engine, horsepower-hour (HP-hr).

[40 CFR§60.4244(f)]

- g. If the owner/operator chooses to measure VOC emissions using either Method 18 or 40 CFR part 60, appendix A, or Method 320 of 40 CFR part 63, appendix A, then it has the option of correcting the measured VOC emissions to account for the potential differences in measured values between these methods and Method 25A. The results from Method 18 and Method 320 can be corrected for response factor differences using Equations 4 and 5 of this section. The corrected VOC concentration can then be placed on a propane basis using Equation 6 of this section.

$$RF_i = \frac{C_{Mi}}{C_{Ai}} \quad (\text{Eq. 4})$$

Where:

RF_i = Response factor of compound i when measured with EPA Method 25A.

C_{Mi} = Measured concentration of compound i in ppmv as carbon.

C_{Ai} = True concentration of compound i in ppmv as carbon.

$$C_{icorr} = R_{Fi} \times C_{imeas} \quad (\text{Eq.5})$$

Where:

C_{icorr} = Concentration of compound i corrected to the value that would have been measured by EPA Method 25A, ppmv as carbon.

C_{imeas} = Concentration of compound i measured by EPA Method 320, ppmv as carbon.

$$C_{Peq} = 0.6098 \times C_{icorr} \quad (\text{Eq. 6})$$

Where:

C_{Peq} = Concentration of compound i in mg of propane equivalent per DSCM.
[40 CFR§60.4244(g)]

4.4. Recordkeeping Requirements

4.4.1. **Record of Monitoring.** The permittee shall keep records of monitoring information that include the following:

- a. The date, place as defined in this permit and time of sampling or measurements;
- b. The date(s) analyses were performed;
- c. The company or entity that performed the analyses;
- d. The analytical techniques or methods used;
- e. The results of the analyses; and
- f. The operating conditions existing at the time of sampling or measurement.

4.4.2. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.0, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.

4.4.3. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

- a. The equipment involved.
- b. Steps taken to minimize emissions during the event.
- c. The duration of the event.
- d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

- e. The cause of the malfunction.
- f. Steps taken to correct the malfunction.
- g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

4.4.4. **Minor Source of Hazardous Air Pollutants (HAP).** The registrant shall maintain records of annual HAP emissions using AP-42 emission factors, GRI-GLY Calc model outputs, manufacturer guaranteed values, sample and/or test data, or other methods approved by DAQ demonstrating that facility-wide emissions are less than those specified in Section 4.1.1.

4.4.5. For the two (2) emergency generators (Emission Unit IDs 005-01 and 005-02) with stationary SI ICE, the permittee must keep records of:

- a. All notifications submitted to comply with 40 CFR 60, Subpart JJJJ and all documentation supporting any notification.
- b. Maintenance conducted on the engine.
- c. If the stationary SI ICE is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR part 90 and 1048, as applicable.
- d. If the stationary SI ICE is not a certified engine or is a certified engine operating in a non-certified manner and subject to §60.4243(a)(2), documentation that the engine meets the emission standards.

[40CFR§60.4245(a)]

4.4.6. To demonstrate compliance with Sections 4.1.7 and 4.1.8, the permittee of stationary SI ICE shall keep a log detailing the date, time, number of hours operated and twelve-month rolling total (of hours of operation) for each of the emergency generator engines.

4.4.7. The permittee of stationary SI ICE that are subject to performance testing must submit a copy of each performance test as conducted in §60.4244 within 60 days after the test has been completed.

[40CFR§60.4245(d)]

5.0. Source-Specific Requirements (Dehy and Flare)

5.1. Limitations and Standards

5.1.1. The maximum wet natural gas throughput to the dehydration unit shall not exceed 13.5 mmscf/day. Compliance with this limit shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of the monthly throughput at any given time during the previous twelve consecutive calendar months.

5.1.2. The applicant shall not cause, suffer, allow or permit aggregate emissions of hazardous air pollutants (HAPs) to exceed the potential to emit (pounds per hour and tons per year) recorded below:

| Pollutant | Hourly Emissions (lb/hr) | Annual Emissions (tons/yr) |
|----------------------------|--------------------------|----------------------------|
| Nitrogen Oxides | 0.20 | 0.88 |
| Carbon Monoxide | 0.40 | 1.75 |
| Volatile Organic Compounds | 4.27 | 18.69 |
| Benzene | 0.06 | 0.26 |
| Ethylbenzene | 0.04 | 0.16 |
| Hexane | 0.06 | 0.28 |
| Toluene | 0.15 | 0.66 |
| Xylene | 0.32 | 1.42 |
| Total HAPs | 0.63 | 2.78 |

5.1.3. For purposes of determining potential HAP emissions at transmission and storage facilities to comply with the requirements in Section 4.1.2, the methods specified in 40 CFR 63, Subpart HHH shall be used. For purposes of determining potential HAP emissions at production-related facilities, the methods specified in 40 CFR 63, Subpart HH (i.e. excluding compressor engines from HAP PTE) shall be used.

5.1.4. Flares subject to this section shall be designed and operated in accordance with the following:

- Flares shall be steam-assisted, air-assisted, or non-assisted.
- Flares shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.
- Flares shall be operated, with a flame present at all times whenever emissions may be vented to them, except during SSM (Startup, Shutdown, Malfunctions) events.

- d. A flare shall be used only where the net heating value of the gas being combusted is 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or where the net heating value of the gas being combusted is 7.45 MJ/scm (200 Btu/scf) or greater if the flare is non-assisted. The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$H_T = K \sum_{i=1}^n C_i H_i$$

Where:

H_T =Net heating value of the sample, MJ/scm; where the net enthalpy per mole of off gas is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 °C.

K =Constant=

$$1.740 \times 10^{-7} \left(\frac{1}{\text{ppmv}} \right) \left(\frac{\text{g-mole}}{\text{scm}} \right) \left(\frac{\text{MJ}}{\text{kcal}} \right)$$

where the standard temperature for (g-mole/scm) is 20 °C.

C_i =Concentration of sample component i in ppmv on a wet basis, which may be measured for organics by Test Method 18, but is not required to be measured using Method 18 (unless designated by the Director).

H_i =Net heat of combustion of sample component i , kcal/g-mole at 25 °C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-76 or 88 or D4809-95 if published values are not available or cannot be calculated.

n =Number of sample components.

- e. Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity less than 18.3 m/sec (60 ft/sec), except as provided by 5.1.4.f and 5.1.4.g of this section. The actual exit velocity of a flare shall be determined by dividing the volumetric flow rate of gas being combusted (in units of emission standard temperature and pressure), by the unobstructed (free) cross-sectional area of the flare tip, which may be determined by Test Method 2, 2A, 2C, or 2D in appendix A to 40 CFR part 60, as appropriate, but is not required to be determined using these Methods (unless designated by the Director).
- f. Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in 5.1.4.e. of this section, equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec), are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).
- g. Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in 5.1.4.e. of this section, less than the velocity V_{\max} , as determined by the calculation specified in this paragraph, but less than 122 m/sec (400 ft/sec) are allowed. The maximum permitted velocity, V_{\max} , for flares complying with this paragraph shall be determined by the following equation:

$$\text{Log}_{10}(V_{\max}) = (H_T + 28.8) / 31.7$$

Where:

V_{\max} =Maximum permitted velocity, m/sec.

28.8=Constant.

31.7=Constant.

H_T =The net heating value as determined in 5.1.4.d of this section

- h. Air-assisted flares shall be designed and operated with an exit velocity less than the velocity V_{max} . The maximum permitted velocity, V_{max} , for air-assisted flares shall be determined by the following equation:

$$V_{max}=8.71 + 0.708(H_T)$$

Where:

V_{max} =Maximum permitted velocity, m/sec.

8.71=Constant.

0.708=Constant.

H_T =The net heating value as determined in 5.1.4.d of this section.

- 5.1.5 The applicant is not required to conduct a flare compliance assessment for concentration of sample (i.e. Method 18) and tip velocity (i.e. Method 2) until such time as the Director requests a flare compliance assessment to be conducted in accordance with section 5.3.2, but the applicant is required to conduct a flare design evaluation in accordance with section 5.4.2. Alternatively, the applicant may elect to demonstrate compliance with the flare design criteria requirements of section 5.1.4 by complying with the compliance assessment testing requirements of section 5.3.2.

5.2. Monitoring Requirements

- 5.2.1 In order to demonstrate compliance with the requirements of 5.1.4.c, the applicant shall monitor the presence or absence of a flare pilot flame using a thermocouple or any other equivalent device, except during SSM events.
- 5.2.2. The applicant shall monitor the throughput of wet natural gas fed to the dehydration system on a monthly basis for each glycol dehydration unit listed in the issued General Permit Registration.

5.3. Testing Requirements

- 5.3.1 In order to demonstrate compliance with the flare opacity requirements of 5.1.4.b the applicant shall conduct a Method 22 opacity test for at least two hours. This test shall demonstrate no visible emissions are observed for more than a total of 5 minutes during any 2 consecutive hour period using 40CFR60 Appendix A Method 22. The applicant shall conduct this test within one (1) year of permit issuance or initial startup whichever is later. The visible emission checks shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40 CFR part 60, appendix A, Method 22 or from the lecture portion of 40 CFR part 60, appendix A, Method 9 certification course.
- 5.3.2 The Director may require the applicant to conduct a flare compliance assessment to demonstrate compliance with section 5.1.4. This compliance assessment testing shall be conducted in accordance with Test Method 18 for organics and Test Method 2, 2A, 2C, or 2D in appendix A to 40 CFR part 60, as appropriate, or other equivalent testing approved in writing by the Director. Also, Test Method

18 may require the applicant to conduct Test Method 4 in conjunction with Test Method 18.

- 5.3.3 In order to demonstrate compliance with 5.1.3, upon request of the Director, the applicant shall demonstrate compliance with the HAP emissions thresholds using GLYCalc Version 3.0 or higher. The applicant shall sample in accordance with GPA Method 2166 and analyze the samples utilizing the extended GPA Method 2286 as specified in the GRI-GLYCalc V4 Technical Reference User Manual and Handbook.

5.4. Recordkeeping Requirements

- 5.4.1. For the purpose of demonstrating compliance with section 5.1.4.c and 5.2.1, the applicant shall maintain records of the times and duration of all periods which the pilot flame was absent.
- 5.4.2 For the purpose of demonstrating compliance with section 5.1.4 and 5.3.2, the applicant shall maintain a record of the flare design evaluation. The flare design evaluation shall include, net heat value calculations, exit (tip) velocity calculations, and all supporting concentration calculations and other related information requested by the Director.
- 5.4.3 For the purpose of demonstrating compliance with the requirements set forth in sections 5.1.4 and 5.3.3., the applicant shall maintain records of testing conducted in accordance with 5.3.3.
- 5.4.4. The applicant shall document and maintain the corresponding records specified by the on-going monitoring requirements of 5.2 and testing requirements of 5.3.
- 5.4.5 For the purpose of demonstrating compliance with section 5.1.4.b, the applicant shall maintain records of the visible emission opacity tests conducted per Section 5.3.1.
- 5.4.6. For the purpose of demonstrating compliance with section 5.1.3, the applicant shall maintain a record of all potential to emit (PTE) HAP calculations for the entire affected facility. These records shall include the natural gas compressor engines and ancillary equipment.
- 5.4.7. The applicant shall maintain a record of the wet natural gas throughput through the dehydration system to demonstrate compliance with the natural gas throughput limit set forth in General Permit Registration.
- 5.4.8. All records required under Section 5.4 shall be maintained on site or in a readily accessible off-site location maintained by the applicant for a period of five (5) years. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.

5.5. Reporting Requirements

- 5.5.1 If applicant is required by the Director to demonstrate compliance with section 5.3.3, then the applicant shall submit a testing protocol at least thirty (30) days prior to testing and shall submit a notification of the testing date at least fifteen (15) days prior to testing. The applicant shall submit the

testing results within sixty (60) days of testing and provide all supporting calculations and testing data.

- 5.5.2. Any deviation(s) from the allowable visible emission requirement for any emission source discovered during observations using 40CFR Part 60, Appendix A, Method 9 or 22 shall be reported in writing to the Director of the Division of Air Quality as soon as practicable, but in any case within ten (10) calendar days of the occurrence and shall include at least the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.
- 5.5.3 Any deviation(s) from the flare design and operation criteria in Section 5.1.4 shall be reported in writing to the Director of the Division of Air Quality as soon as practicable, but in any case within ten (10) calendar days of discovery of such deviation.

DRAFT

CERTIFICATION OF DATA ACCURACY

I, the undersigned, hereby certify that, based on information and belief formed after reasonable inquiry, all information contained in the attached _____, representing the period beginning _____ and ending _____, and any supporting documents appended hereto, is true, accurate, and complete.

Signature¹

(please use blue ink)

Responsible Official or Authorized Representative

Date

Name and Title

(please print or type)

Name

Title

Telephone No. _____

Fax No. _____

¹ This form shall be signed by a "Responsible Official." "Responsible Official" means one of the following:

- a. For a corporation:** The president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:
- (i)** the facilities employ more than 250 persons or have a gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), or
 - (ii)** the delegation of authority to such representative is approved in advance by the Director;
- b. For a partnership or sole proprietorship:** a general partner or the proprietor, respectively;
- c. For a municipality, State, Federal, or other public entity:** either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of USEPA); or
- d. The designated representative delegated with such authority and approved in advance by the Director.**